10 Consolidation and Conclusions

Now that we have unraveled and verified the mechanism underlying the design of front office – back office configurations, we can consolidate the findings from this study in the development of a framework for the design of front office – back office configurations. It was the main objective of this research to develop a framework that provides insight in and so supports design decisions regarding front office and back office activities in service delivery processes. We build the framework on the answers to the research questions we formulated at the outset of this study. To answer these questions, we combine the findings from the literature review, the exploratory case study, the five main case studies and the case study we conducted for verification of the mechanism. The research questions were:

1. What are the design decisions regarding front office and back office activities in service delivery processes?
2. What are the considerations and trade-offs that underlie these design decisions?
3. Which variables influence the considerations and in what ways?

The answers to these questions are provided in the first three sections (10.1, 10.2 and 10.3). Together with the illustration we present in section 10.4, they form the framework that provides insight in and so supports the design of front office – back office configurations. In section 10.4 we also address some distinct characteristics of the framework and the empirical domain to which it can be applied. Next, in section 10.5 we describe three main roles in which the framework can be applied, i.e. description, diagnosis and design. Section 10.6 presents a number of empirical conclusions following from developing the framework. Section 10.7 summarizes the theoretical and practical contributions of the findings from this study. Finally, in section 10.8 we address some of the limitations of this study and provide suggestions for future research.

It should be noted that we address the contents of the framework in considerable detail. This is to accomplish that the (basic) information that is required to use the framework is conveniently compiled in one place. Hopefully this reduces the need to refer back to previous chapters of the thesis in order to obtain elementary information.

10.1 What are the design decisions?

The first research question and area of interest for the framework involved the design decisions regarding front office and back office activities in service delivery processes. We concluded that the current literature does not provide a concise overview of design decisions that cover the front office – back office issue and the way in which they relate to each other. Yet, such an overview is desirable. Combining the customer contact approach (e.g. Chase, 1978) and the typologies of Larsson and Bowen (1989) and Metters and Vargas (2000) with the results from the exploratory case study, we specified three design decisions related to the front office – back office issue in service delivery processes: the definition of front office and back office activities, the decoupling decisions and organizational arrangements. We proposed that these three decisions form a front office – back office configuration. A front office – back office configuration is a particular way of structuring front office and back office work in a service delivery process. It determines the basic structure of the process and indicates the nature of the performance that can be expected. Based on the five case studies we conducted (and one for verification), we conclude that the design decisions seem comprehensive. We did not come across design aspects related to the front office – back office issue that were not captured by our definition of front office – back office configurations. Together the design decisions provided sufficient information to understand how the banks had handled the front office – back office issue. In addition, the three design decisions did not seem to overlap or contain unneeded information. Therefore, we conclude that our definition of front office – back office configurations is sufficiently comprehensive for capturing the front office – back office issue. Below we address each design decision in more detail.

- First, the design decision regarding the definition of front office and back office activities determines which activities in a service delivery process are carried out with customer contact and which ones without. Customer contact involves a direct encounter between a customer and a service provider that takes place in the same time, but not necessarily in the same space, and has the opportunity for interaction. Thus, this design decision determines the number and the position of front office and back office activities in a service delivery process.

- Second, the decoupling decisions involve breaking a process in sub processes that are allocated to different employees. The basic question is whether one or few employees carry out most of the work themselves or the process is divided over several employees. In general, decoupling causes a need to handover work. Contrary to existing literature, we conclude that decoupling does not have to take place on the distinction between front office and back office activities. Current literature suggests that front office and back office activities should be separated from each other and

allocated to different employees that are grouped in different departments. However, given the evidence from the case studies, we argue that decoupling can also take place on different grounds, such as the commercial or administrative orientation of the work. Furthermore, we conclude that multiple decoupling points are possible, indicating the degree of decoupling of a process. The more handovers of work between employees are required, the more decoupled a process is.

- The third design decision involves the organizational arrangements in a front office – back office configuration. Organizational arrangements regard the grouping of employees that are consecutively involved in a service delivery process. We only include first-order grouping, that is the grouping of employees until the first level of supervision. In the current literature, this decision is considered an integral part of the decoupling decision, as decoupling naturally leads to the establishment of different groups of employees under separate supervisions, i.e. a front office and a back office. Yet, we conclude that grouping not necessarily reflects the decoupling decisions. The case studies showed, for example, that consecutive employees can be grouped in sales teams, instead of in front office and back office departments. This significantly influences the expected performance of the service delivery process. Therefore, we separate the grouping decisions from the decoupling decisions. In this research, we made a distinction between grouping by market and grouping by function. In functional groups, employees that carry out similar work are grouped together. Generally, functional groups are a continuation of the decoupling decisions. In market groups, on the other hand, the employees that are consecutively involved in a service delivery process are grouped together. This means the employees have different tasks, but contribute to the same service or serve the same customer(s). Finally, we conclude that a service delivery process can contain multiple groups. A process can consist of, for example, market groups of frontline employees and their assistants and a functional group of administrative support employees.

Following these descriptions of the three design decisions in a front office – back office configuration, we conclude they are separate design decisions, each requiring an individual choice which involves its own arguments and design considerations. In the case studies, for example, it was not possible to derive particular design choices from one of the other decisions. For example, knowing the definition of front office and back office activities often did not reveal the decoupling decisions. Likewise, the organizational arrangements were established separate from the decoupling decisions.
However, the design decisions should not be reviewed in isolation. We observed that the design decisions needed each other to form a coherent front office – back office configuration that would yield a particular performance. A few case examples: back office activities to achieve efficiency will yield highest efficiency when the process is decoupled

and employees are grouped functionally (unless this creates a lot of idle time). Front office activities to increase sales and speed require the front office activities to be coupled to realize this. Decoupling for customized products requires market groups to achieve acceptable levels of speed and quality. Hence, the design decisions required coordination.

In conclusion, the front office – back office issue can be characterized by three design decisions: the definition of front office and back office activities, the decoupling decisions and organizational arrangements. They are separate design decisions in a front office – back office configuration, but should not be reviewed in isolation.

10.2 What are the underlying design considerations?

The second research question and area of interest for the framework regarded the design considerations and trade-offs underlying the design decisions. We expected that each design decision would involve several design options, each having different performance effects. In order to make sensible design decisions or explain a design, it is valuable to know and understand the considerations and performance trade-offs involved. Based on the evidence from the five main case studies, we derived three trade-offs, one for each design decision. They were compared with existing insights and verified in a new case in a competing bank. We conclude that although the banks made their own design choices, the trade-offs themselves can be considered universal, at least for the domain of financial services. Below we address each trade-off in detail. They are summarized in table 10.1.

- First, for the definition of front office and back office activities, there is a trade-off between, on the one hand, efficiency and risk control and, on the other hand, sales and speed. Back office activities often have more efficiency potential than front office activities, because they do not suffer from customer-induced uncertainties, which makes them more easy to control and rationalize. Back office activities also offer opportunities for improved risk control, for example through counterchecks by supervisors or colleagues. Front office activities, on the other hand, can create an increase in sales through opportunities for cross-selling, as the customer spends more time in direct contact with the service provider. Furthermore, this study revealed that if follow-up work is eliminated, front office activities increase the speed of service delivery, because services can be delivered instantly.

- Second, the decoupling decisions involve a complex trade-off. Decoupling processes enables the centralization of particular activities, leading to economies of scale. In addition, it enables specialization of employees and better matches between workers and tasks. This means employees can be hired on the basis of particular skills and develop learning curves, both contributing to the efficiency and quality of the tasks

Table 10.1: Overview of the performance trade-offs			
Front office activities		**Back office activities**	
Sales	Cross-selling	Control and rationalization	*Efficiency*
Speed	Instant delivery	Counterchecks	*Risk control*
Coupled processes		**Decoupled processes**	
Efficiency *Quality* *Speed*	No handovers Concentrated customer knowledge No idle time Broad tasks	Centralization Specialization Match worker-task No over-qualification Counterchecks	*Efficiency* *Quality* *Sales* *Risk control*
Market groups		**Functional groups**	
Speed *Quality*	Workflow coordination	Economies of scale Continuity of service delivery Uniformity Cross-fertilization	*Efficiency* *Quality* *Reliability*

they carry out. Decoupling processes also prevents over-qualification, as highly skilled and paid workers can be freed from the work they are over-qualified for, and offers the opportunity for building in counterchecks, for example by having each employee check the work of the previous employee in the service delivery process. Together, these benefits can improve the efficiency and quality of service delivery, the number of sales and risk control. Yet, these benefits come at the expense of other things.

The opposite side of the trade-off, following from coupled processes, entails that handovers of work between employees can be avoided. This reduces the time that is needed for service delivery and prevents information losses or the creation of noise when information is transferred. In addition, coupled processes ensure that customer knowledge is kept in one place or with one employee. This means customers only have to deal with one employee and questions regarding e.g. work in progress can be answered directly. Another benefit of coupled processes regards the prevention of idle time. As front office facilities generally have to be staffed for peak demand, there will inevitably be idle time when contact employees are waiting for customers to arrive. Carrying out the non-contact activities can be used to fill the idle time. Particularly when the number of contact staff is high, coupled processes can be more efficient than allocating administrative activities to central support departments. Finally, coupled processes lead to the creation of broad tasks. Depending on the work and the worker, broad tasks can significantly improve employee motivation and satisfaction and in this way employee productivity and the quality of the output. Together, the benefits of coupled processes can improve the efficiency, quality and speed of service delivery. When we compare both sides of the trade-off involved in decoupling decisions, we can conclude that decoupling as well as coupling can increase the

efficiency and quality of service delivery, yet in different ways. This makes this trade-off particularly complex.

- Third, the trade-off involved in the organizational arrangements in a front office – back office configuration regards the weighing of the benefits of functional groups against the benefits of market groups. In general, functional groups, i.e. groups of employees that conduct similar tasks, can be used to realize economies of scale and to improve the continuity of service delivery, as high workloads can be shared between employees and employees can more easily fill in for each other in case of absence. In addition, functional groups promote uniformity in the way in which the work is carried out and cross-fertilization between employees, for colleagues can easily share experiences or ask for advice. These characteristics can improve the efficiency, quality and reliability of service delivery. Market groups, on the other hand, have the advantage of workflow coordination. As employees that are consecutively involved in a service delivery process, such as an advisor, a commercial support employee and an administrative support employee, work closely together, they can easily share information and coordinate their tasks. There is less risk of information losses, noise or waiting times. In general, this improves the quality and speed of service delivery. Like the decoupling trade-off, the trade-off involved in the grouping decision can also be characterized by the fact that quality appears on both sides.

In conclusion, the considerations underlying the design decisions regarding front office and back office activities in service delivery processes involve three trade-offs, one for each design decision. These trade-offs involve the weighing of performance objectives. We elaborated each trade-off, as summarized in table 10.1, and conclude that for decoupling and organizational arrangements both sides of the trade-offs (partly) affected the same performance objectives, yet in different ways. As we shall explain in the next section, making choices on these trade-offs involves the impact of a number of variables, but more importantly, we conclude that they can be overcome.

10.3 Which variables influence the considerations?

The third research question and area of interest for the framework regarded the variables that influence the design considerations. We expected that making choices on the trade-offs would involve more than deciding which performance objectives seemed most attractive. In fact, we assumed a number of variables would influence the design decisions, such as the service being delivered and the strategic priorities of an organization. As an overview of relevant variables and their impact on the design considerations was not available, we concentrated on finding out which variables were taken into account when making design decisions. To that end, we included five broad categories of variables in our

conceptual model and proposed a number of operationalizations. The categories were service characteristics, competitive priorities, company priorities, information technology and staff characteristics. We analyzed the case study evidence to find out which variables had a large impact on the design of front office – back office configurations. However, providing an overview of the variables that have an impact on the considerations underlying the design decisions was not the only aim of the framework. We were also interested in their interplay, or the way in which they work together in determining the design of a front office – back office configuration. In this respect, we proposed that making choices on the performance trade-offs would be a complex mechanism of considerations. These considerations regard the weighing of the performance objectives involved, the coherence between the design decisions and the impact of the influencing variables. Below we address the mechanism and the variables that have an impact on the design decisions.

With regard to the mechanism, we conclude that designing front office – back office configurations entails, firstly, adhering to *given choices* that are inherent to providing a particular service and, secondly, making choices on the *trade-offs*. The latter involves combining the impact of service characteristics and strategic priorities, in which information technology and staff characteristics can provide constraints and opportunities.

With regard to **service characteristics**, we conclude that, on the one hand, service characteristics can cause a number of given choices and so determine the design decisions. The service being delivered can make demands on the design of its service delivery process, irrespective of an organization's strategy or structure. A clear example is the inseparability of production and delivery of a service, demanding the definition of front office activities. Furthermore, we found that, although it technically is not a *given* choice, services often require front office activities to exchange information with customers. Although direct customer contact can be in principle avoidable, it might not be practical to exchange the information through indirect channels. This particularly applies to customized services. Hence, service characteristics can make demands on the design of a front office – back office configuration.

On the other hand, we conclude that **service characteristics** often emphasize a particular side of a trade-off. In this way, they make a particular choice more evident than another, because of the results that can or cannot be expected. The main service characteristics that appear to have an effect are the degree of service customization and the complexity and diversity of the work involved in delivering the service. We came across the following effects:

- With regard to the definition of front office and back office activities, it depends on the nature of the service whether the definition of front office activities is at all feasible

and will lead to the desired results. For example, for service encounters that already take long, additional front office activities are not likely to increase sales opportunities. Likewise, some activities are too complex or take too long to be defined as front office activities.

- With regard to the decoupling decisions, service characteristics point towards one end of the trade-off, for it depends on the service whether particular benefits and drawbacks can be expected. For example, when the work involved in delivering a service is highly diverse and different skills are required, decoupling is more evident. For relatively simple work, broad tasks might be more desirable than for complex work. For customized services, avoiding handovers might be more essential than for standardized services. In fact, for standardized services decoupled processes do not have to create problems related to handing over work or distributed customer knowledge, as information systems can be employed to facilitate the exchange of information.
- With regard to the organizational arrangements, we conclude that the degree of service customization determines to what extent market groups are required to support workflow coordination. In addition, the complexity of the work involved in delivering a service influences which benefits from functional groups will be most valued. For complex work, cross-fertilization is often more important than for simple work. For simple work, the more obvious arguments are scale economies, continuity and uniformity.

Thus, service characteristics influence the feasibility and desirability of particular choices.

We conclude that an organization's strategy also influences the considerations underlying the design decisions. With regard to **competitive priorities**, we distinguished between quality, speed, reliability, flexibility and price. They are the external objectives of an organization, the way in which it competes with other organizations. In addition to competitive priorities, we distinguished **company priorities**. They are the internal objectives of an organization, such as decreasing costs or increasing revenues. We conclude that making choices on the trade-offs involves comparing the expected performance with the desired performance to determine which side of the trade-off is preferred. In this study, company priorities had the largest impact on the designs of the front office – back office configurations. From this we conclude that it is worthwhile to make a distinction between competitive and company priorities and that company priorities should be considered as much part of an organization's strategic priorities as its competitive priorities.

Besides the service being delivered and the strategy of an organization, we looked at the impact of **information technology** on the design considerations. We conclude that information technology plays a large role, particularly the information systems in use for delivering services. They can offer limitations or constraints for the design of front office – back office configurations. For example, information systems can improve the efficiency of

a design containing mainly front office activities. In addition, they can facilitate the handover of work in a decoupled process or accomplish concentrated customer knowledge. Malfunctioning or absent information systems can prevent these design decisions or decrease the performance of the processes. Thus, we conclude that information systems are an important variable influencing the design of front office – back office configurations by enabling design decisions and overcoming trade-offs.

Like information technology, the available **human resources** can also influence the design considerations by imposing constraints or providing opportunities. In this study, we looked at the impact of staff characteristics, such as the skills of the available staff. We conclude that staff characteristics can influence the decoupling decisions, by determining whether the allocation of activities to a particular function is feasible. For example, the presence of highly specialized staff makes a coupled process less evident than a decoupled process. The banks in this study were confronted with a distinction between sales people and administrative people.
Thus, staff characteristics can also influence the considerations underlying the design of front office – back office configurations.

From this description of the mechanism and the influencing variables, we can conclude that the trade-offs involved in the design decisions can be overcome. Although the design decisions can be characterized by "real" trade-offs, involving the weighing of performance objectives, we conclude that making a particular choice does not have to entail severely negative side effects or sacrifices in terms of other performance objectives. In this way, multiple objectives can be achieved simultaneously. We identify three reasons for this.

- First, service characteristics determine whether a trade-off really involves choosing between two options. In several occasions, front office activities or decoupling will not lead to the desired results, so the other option is preferable. In other occasions, the service will not be susceptible to the drawbacks of a particular choice, e.g. decoupling, so the choice can be made without large sacrifices.
- Second, there are ways to overcome the side effects of particular design choices. Here, information systems play a large role. Information systems can be used, for example, to maintain the efficiency of front office activities, to facilitate the handovers of work in decoupled processes and to design coupled processes without the risk of over-qualification. Additionally, coordinating the design decisions contributes to overcoming the trade-offs. We found that establishing sales teams largely overcomes the potential decrease in quality and speed of service delivery related to handing over work in a decoupled process, particularly when the service being delivered is customized.
- Third, the design decisions often affect multiple aspects of performance, and in more than one way. For example, both coupling and decoupling a process can improve the

quality and efficiency of service delivery. Therefore, making a particular design choice not necessarily entails bad performance in terms of quality, speed, reliability, flexibility, costs or sales.

In conclusion, the variables that influence the considerations that underlie the design of front office – back office configurations are service characteristics, competitive priorities, company priorities, information technology and staff characteristics. Service characteristics can make demands on the design of a front office – back office configuration through the occurrence of given choices. In addition, they emphasize one side of a trade-off, particularly the degree of service customization, work complexity and work diversity. Strategic priorities determine ultimate design choices, while information systems and staff characteristics can limit or enlarge the available design space. Finally, we conclude that by using information systems and by coordinating the design decisions trade-offs can be overcome.

10.4 The framework in total

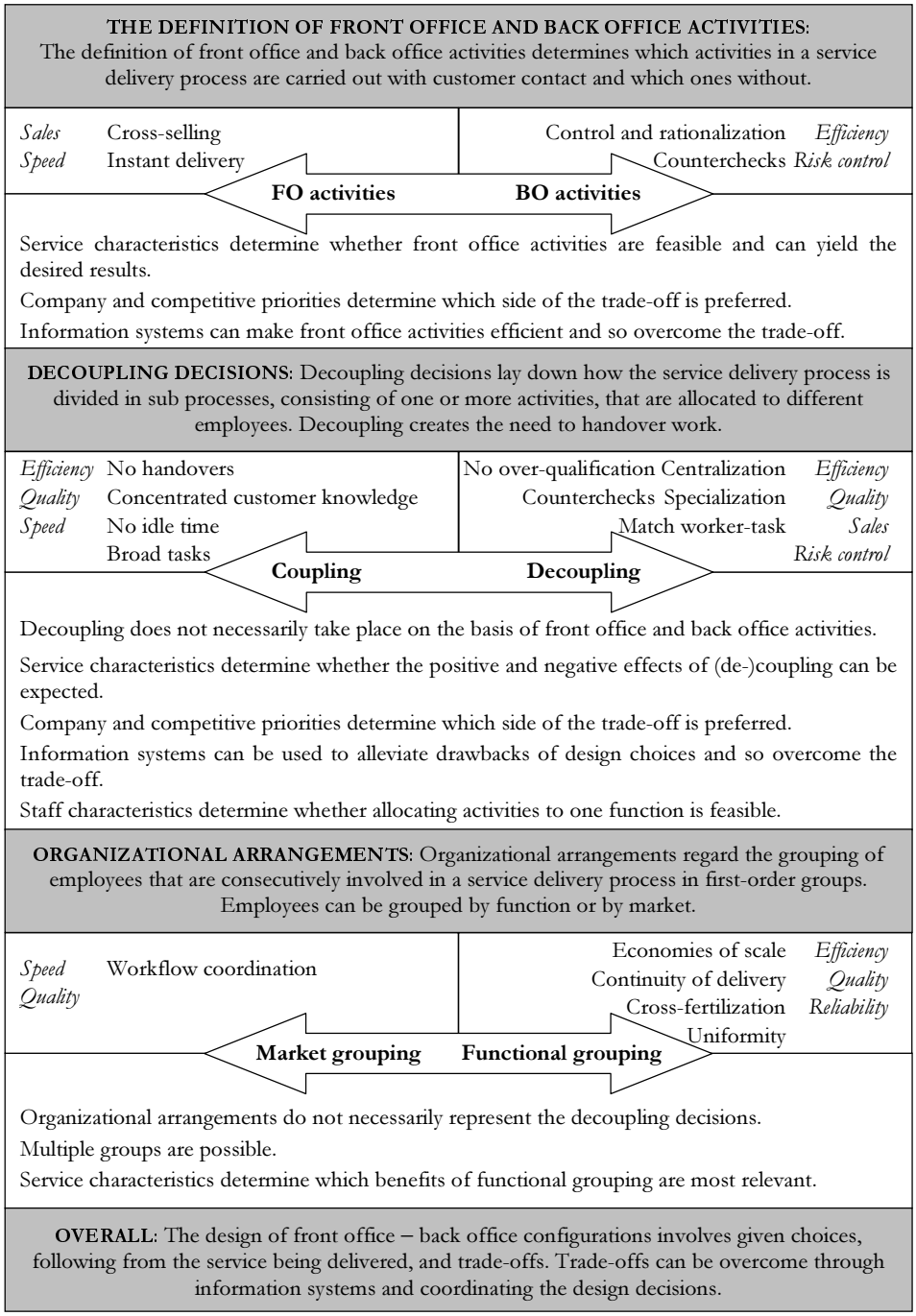
Now that we have answered the three research questions, figure 10.1 summarizes the main elements of the framework that provides insight in and so supports the design decisions regarding front office and back office activities in service delivery processes. Below we address the distinct characteristics of this framework compared to the existing insights and the empirical domain to which the framework can be applied.

Distinct characteristics

Compared to the existing insights addressing the front office – back office issue, such as the customer contact approach (Chase, 1978; Chase, 1981; Chase and Tansik, 1983), the framework of Larsson and Bowen (1989) and the typology of decoupling strategies by Metters and Vargas (2000), this framework has six distinct characteristics.

1. It represents an operations management approach, in the sense that it starts from the activities in a service delivery process. They form the basis for many other design decisions. In addition, the framework concentrates on the efficiency and effectiveness of the flow of a process from beginning to end, given the occurrence of both front office and back office activities. The front office – back office issue has not often been addressed from a process perspective.
2. The framework is set up from a design perspective. Although this study does not yet provide a new or revised design theory for the front office – back office issue, the framework is meant to be one of the steps towards such a theory. For this reason, it is not merely descriptive or explanatory, but provides the onset for prescriptive statements as well.

Figure 10.1: The framework for the design of front office – back office configurations



3. With regard to the contents of the framework we conclude that it is more comprehensive than the existing insights. We distinguish three design decisions, rather than just one or two. The existing frameworks mostly address one of the design decisions in isolation or do not tell them apart. Furthermore, the framework includes the impact of several influencing variables and we have worked out these variables in detail. For example, we include service characteristics, strategic priorities, information technology and staff characteristics. They have been refined to e.g. the degree of service customization, the complexity of the work involved, increasing sales and delivering quality service. In this way, our framework is more comprehensive and offers integrated insights. Metters and Vargas (2000), for example, only distinguish between cost and non-cost strategies. The customer contact approach does not take the strategic priorities of an organization or the characteristics of the service being delivered into account.
4. The framework addresses the design decisions in more detail than the current insights. We consider the emergence of customer contact at the level of individual activities, instead of dividing a service delivery process in a front office part and a back office part that can easily be separated. Additionally, from our point of view, a process is not merely coupled or decoupled. We recognize processes can be decoupled to a greater or less extent, depending on the number of decoupling points, i.e. handovers of work between employees. Moreover, we separate the grouping decisions from the decoupling decisions, recognizing different bases for grouping and the occurrence of different kinds of groups in one process.
5. The framework explicitly includes the role of information technology, one of the voids in the current literature. We found that information systems are a valuable source for overcoming trade-offs between performance objectives. In this way, the framework is suitable for use in today's competitive arena.
6. Finally, the framework is empirically grounded. Although we build on the existing insights, we deliberately constructed a relatively open conceptual model and have unraveled the mechanism underlying the design of front office – back office configurations from the case study evidence. Doing so, the framework contains design decisions and design considerations that have been derived from empirical settings. This increases the relevance of this framework for the empirical world, at least the financial services sector, and the ease with which researchers can elaborate the framework using empirical data.

In summary, we conclude that the framework we developed in this study is a valuable contribution to the existing insights by offering an operations management approach, a design perspective and a comprehensive, detailed, up-to-date and empirically grounded overview of the design decisions, design considerations and influencing variables related to the design of front office – back office configurations.

Area of application

In addition to developing the framework and identifying its distinct characteristics, it is essential to assess the domain to which the framework can be applied. The framework is based on the evidence from six banks from a cooperative banking group and one competing bank. Thus, in the narrowest sense, the framework applies to these banks. However, we have taken a number of measures to achieve that the framework can also be applied to other banks and perhaps other service organizations:

- We sampled banks that were quite different from each other with regard to their design decisions and design considerations. This was possible because of the local autonomy of the banks participating in the cooperative banking group. We also varied their organizational context, such as size and regional area. In this way, the empirical study covers a relatively broad range of (financial service) organizations.
- We studied three processes that were distributed for maximum variation regarding the degree of service customization. This ensures the study covers a relatively broad range of service delivery processes.
- We verified our findings in a competing bank from a different context. This shows that the findings do not have to be limited to the cooperative banking group.
- We compared our findings with the existing insights regarding the front office – back office issue. By tying our conclusions to current literature, we increase the plausibility of finding similar things in other organizations and so the applicability of the framework.

Given these measures we conclude that the framework should be applicable to other financial service organizations as well and to a wide range of financial services.

However, at the outset of this study we put forward that the front office – back office issue is a common service operations problem, instead of a specific financial services problem. The issue applies to all organizations delivering mixed services (services consisting of a combination of front office and back office activities). We chose to study financial services, for we expected them to form a rich data source regarding the front office – back office issue. For example, financial service organizations are prone to high competitive pressures and the influence of information technology and deliver a large variety of services. Therefore, we collected data from the financial services sector. This also makes the framework particularly applicable to this sector. The framework takes into account company priorities that are typical for the delivery of financial services, such as increasing sales and risk control, and given choices following from regulations regarding the provision of financial services.

Still, this does not mean the framework cannot be applied more broadly. (1) There is no reason to believe the design decisions cannot be found outside the financial services sector or that the trade-offs will be significantly different. It might be that for particular organizations, such as hospitals, particular considerations, such as increasing sales, are not very relevant or that sector-specific elements can be added, such as counterchecks for the

financial services sector. Yet, this will not change the basic trade-offs. (2) Likewise, all kinds of organizations will be confronted with given choices and the need to make choices on trade-offs. Although the contents of given choices will vary, the fact that they occur and stem from the service being delivered does not. (3) Moreover, we have tried to refrain from financial jargon in presenting the mechanism and the framework. This should facilitate the transfer to other organizational settings. Hence, we expect the framework as we presented it in this section can be used to address the front office – back office issue in non-financial organizations delivering mixed services.

We expect that as long as the design considerations and the trade-offs in the framework make sense for a particular organization, the framework can be of use. We expect the framework makes most sense for service delivery processes that require, on the one hand, specification of the service and, on the other hand, some back office processing. Furthermore, the division of labor between employees should not be straightforward, for example due to professional qualifications. Given the range of services we studied, the framework should apply from retail to engineer-to-order services. We expect examples can be found in e.g. governmental services (local and national), health care, consultancy, insurance (sales and claim handling), real estate services, employment agencies, case or social work, tax counseling and tax collection, legal advice, helpdesks for technical support etcetera.

To conclude, we expect the framework we developed in this study to be applicable to organizations in the financial services sector, but most likely also beyond the financial services sector, to several other kinds of organizations delivering mixed services.

10.5 Three applications of the framework

The framework for the design of front office – back office configurations we developed in the previous sections not only provides an overview of the front office – back office issue, but can also be applied. In this section, we propose three roles in which the framework can be used in practical situations. They are description, diagnosis and design. For each application, we describe its practical and theoretical use, address what makes the framework suitable and suggest a number of steps for a sound execution.

Description

First, we consider the framework to be a useful tool for describing the design of front office – back office configurations in real-life service organizations. In this way, the framework can be used to show how an organization has dealt with the front office – back office issue, enabling comparisons between organizations. This can be the starting point for organizations to learn from another or develop best practices. From a theoretical point of

Table 10.2: Describing a front office – back office configuration using the framework
1. Describe the characteristics of the service being delivered.
2. Describe the definition of front office and back office activities.
3. What are the reasons for this design choice? Are given choices involved?
4. Describe the decoupling decisions. Mark the number and location of decoupling points.
5. What are the reasons for coupling and decoupling? Are given choices involved?
6. What are the grounds for decoupling (e.g. contact / non-contact, sales / administration)?
7. Describe the organizational arrangements.
8. What are the reasons for particular groups? Are given choices involved?
9. What is the role of information systems in the service delivery process?

view, it can lead to the development of taxonomies of front office – back office configurations.

Compared to the existing insights, this framework is particularly suitable as a descriptive tool, for it is grounded in empirical data and therefore fits the empirical world. As an example, the design decisions, the design considerations and the influencing variables do not overlook practical design issues, such as the characteristics of the available staff and the importance of continuity of service delivery. In addition, the framework is comprehensive with regard to the front office – back office issue, providing sufficient information for the basic structure of a service delivery process. Still, it offers enough room to include the peculiarities of each case situation or expand towards other design decisions, such as second-order grouping, location of employees or work arrangements. Moreover, the design decisions can easily be displayed by the modeling technique we used throughout this thesis. When using the framework as a descriptive tool, we recommend the steps as summarized in table 10.2.

Diagnosis

The second role of the framework is in the diagnosis of existing front office – back office configurations. The framework can be used to analyze particular front office – back office configurations in order to determine their strengths and weaknesses. This helps towards the development of best practice designs. Although we cannot predict exact performance in terms of quality, speed, reliability, flexibility, costs, sales and risk control, the framework shows which performance benefits and drawbacks can reasonably be expected. More specifically, in case of a low-performing front office – back office configuration, a diagnosis can be carried out to find out why the front office – back office configuration does not produce the desired results. This can help organizations to locate bottlenecks in their designs.

The basic premise of the framework, that the three design decisions form a coherent front office – back office configuration with a specific performance, makes it particularly suitable for diagnosis purposes. Furthermore, the framework is a valuable analysis tool, because it

Table 10.3: Diagnosing a front office – back office configuration using the framework
1. Describe the design of the front office – back office configuration using the framework.
2. Describe the company and competitive priorities for the service delivery process (order winners and qualifiers).
3. Evaluate the current performance of the design and the aspects of performance that require improvement.
4. Determine the performance effects that can be expected for this design, given the characteristics of the service being delivered and the available information systems.
5. Compare the expected with the actual performance effects. In case there is a gap, the problem is probably not related to the design choices, but to other causes, such as the execution of the service delivery process.
6. Investigate whether the design is suitable for achieving the desired performance.
7. Investigate whether the design fits the service being delivered.
8. Investigate whether the design makes optimal use of information systems.
9. Investigate whether the design takes the coherence between the design decisions into account.
10. Derive the bottlenecks in the design from steps 4 until 8.

contains a relatively broad range of expected performance effects, instead of concentrating on one or two performance objectives. In addition, we have worked out in detail how performance objectives are affected by a particular design choice. Also, we have included the impact of service characteristics on the design of front office – back office configurations, as well as the impact of information technology. Both variables can have a significant impact on the performance of a front office – back office configuration. Table 10.3 summarizes the steps we suggest for the diagnosis of an existing front office – back office configuration. When a diagnosis is carried out to determine the strengths and weaknesses of a design, only the first and fourth steps are required.

Design

Third, the framework can be used as starting point for designing front office – back office configurations. Obviously, this supports organizations needing to (re-)design a front office – back office configuration. Even though the framework is not a complete and tested design theory, it offers several suggestions for the design process. First, the framework identifies the relevant design decisions and suggests a design order. It also explains the potential but not requisite dependencies between the design decisions. Second, the framework shows what kind of information is required in order to make sound design decisions. Information should be collected with regard to the characteristics of the service being delivered, particularly its degree of customization, work complexity and work diversity, the company and competitive priorities for delivering the service, the available information systems and characteristics of the available staff. Third, the framework reduces the design issue and defines it more precisely by distinguishing between given choices and

Table 10.4: Designing a front office – back office configuration using the framework
1. Describe the characteristics of the service being delivered.
2. Describe the company and competitive priorities for the service delivery process (order winners and qualifiers).
3. Describe the activities or process steps that make up the process.
4. Determine the given choices.
5. Determine the constraints following from information systems or staff characteristics.
6. Define front office and back office activities.
7. Make the decoupling decisions.
8. Define the organizational arrangements.
9. Consider the role of information systems.
10. Reduce remaining side effects by the location of employees, work arrangements, second-order grouping etc.

trade-offs. The trade-offs are simplified by distinguishing between what one *wants* to do given the strategic priorities and what one *can* do given service characteristics, information technology and staff characteristics. Fourth and finally, the framework offers a point of reference for each design decision by means of the elaborated impact of service characteristics and the performance effects. Although the framework does not prescribe which design choice should be made for a particular combination of service, strategy, information systems and staff, it shows which performance benefits and drawbacks can reasonably be expected when a particular choice is made. We expect these characteristics of the framework to provide valuable support for design in practical situations. This support is strengthened by the fact that the framework is comprehensive, up-to-date and empirically grounded. We recommend a number of steps for designing front office – back office configurations. They are summarized in table 10.4.

From a theoretical perspective, this framework can be used as the starting point for the development of a design theory regarding the front office – back office issue. We consider it essential to eventually extend the framework into a solid theory that has predictive power. This requires, for example, quantitative studies of the predicted performance effects and applying the framework to a broad range of services in different empirical domains to investigate the impact of service characteristics and develop a typology of front office – back office configurations.

10.6 Empirical results from the framework

Applying the framework in future empirical studies as we described in the previous section can lead to valuable insights. However, developing the framework in this study, building on the evidence from a number of case studies, has already provided us with several empirical results. They regard (1) the recognizability and easy of use of the design decisions in

practice, (2) different interpretations of front office and back office in practice (3) the grounds for decoupling in our cases, (4) the main drivers for design decisions and (5) best practice design considerations.

First, we conclude that the design decisions we specified are fairly easy to use, as they fit design in practical situations. We experienced it was not hard to describe the service delivery processes in terms of the three design decisions, either in words or using the flowcharting technique, and that our perspective was understandable for the banks. Although they might not approach them as analytically or unraveled as we do in this study, the issues of "customer contact", "who does what" and "departmentalization" were highly recognizable and perceived as relevant. Thus, we conclude the three design decisions are fit for use in practice.

Still, the second conclusion regards the slightly different interpretation of the terms front office and back office in practice. When the banks referred to "front office" and "back office", they often meant departments or groups of employees. In this way, they did not mean contact and non-contact employees, but internal duty and external duty. This is further illustrated by the fact that it was quite common for the banks to have a "mid office", as well as a front office and a back office. From a strictly theoretical perspective, this is impossible. If front office refers to customer contact, and back office to an absence of customer contact, there is nothing left for a mid office. Yet, from a practical perspective the objective of a mid office is to moderate between front office and back office employees or front office and back office departments by forming an intermediate layer or platform.
The banks found out that decoupling the sales part of a process from the administrative part and centralizing the administrative part, perhaps even subcontracting it to a shared service center, significantly increased the delivery times of their services. Rush orders, for example, were therefore taken care of locally, i.e. by the sales employees. In addition, all other occurring activities had to be taken care of by the sales employees. This caused a need for a commercial support department to ensure that the sales employees could concentrate on sales. Commercial support departments were often classified as mid offices. Still, it depends on the organizational point of reference what is a mid office, as the process designers of bank V (the bank we studied to verify the mechanism) used the term mid office to refer to what the banks in the cooperative banking group would call a back office. For the process designers of bank V, the shared service centers were the real back offices. Hence, in practice the terms front office and back office seem to be more related to the issues of division of labor and departmentalization, than to the appearance of customer contact.

The third empirical conclusion we can draw regards the basis for decoupling in the banks we studied. We explained that decoupling does not have to take place on the distinction between front office and back office activities. We found that the banks in this study, both

from the cooperative banking group and the competing bank, decoupled their processes on the distinction between sales and administrative tasks. Other organizations might choose to decouple on different grounds. In our cases, the banks looked for similarities in skills, knowledge and attitude that were required for particular activities. Although the customer contact approach puts "different skills required" forward as one of the reasons for decoupling between front office and back office activities, this study shows that the differences in skills do not have to be related to the presence or absence of customer contact. Instead, the banks mainly distinguished between commercial work and administrative work. Hence, decoupling took place on the basis of whether employees required a *sales* or *bookkeeping* attitude. This is emphasized by the fact that the banks were confronted with a lack of employees are capable of performing equally well at both commercial and administrative activities. The respondents from the cooperative banking group and the competing bank argued that these activities require different skills, knowledge and attitudes, that are not often found in one person. They commonly classified their employees as "salesmen" or "bookkeepers", or "hunters" or "shepherds".

Fourth, with regard to the way in which the banks made choices on the trade-offs in the design decisions, we conclude that they mainly relied on their strategic priorities. The banks in this study based their design considerations largely on their desire to increase sales, operate efficiently and control risks. These objectives guided the definition of front office and back office activities, the decoupling decisions and the organizational arrangements. In fact, when the "design suggestion" following from service characteristics conflicted with their company priorities, the banks often adhered to the company priorities.
The impact of competitive priorities was smaller than we expected. The banks did not tailor their front office – back office configurations to their strategic positioning, as their primary design consideration. Instead, they often relied on other variables for making the design choices, while ensuring the design was consistent with their positioning (order winners) and was suitable for achieving the required performance levels for the qualifying objectives. For example, although the banks in this study did not compete on speed, they made several design decisions to increase the speed of service delivery. This study does not provide the grounds to claim that front office – back office configurations can be designed without taking an organization's competitive priorities into account. We do not expect this is desirable either. Nevertheless, the study shows that competitive priorities do not have to be the main driving forces for design decisions, as long as a front office – back office configuration achieves the minimally required levels of quality, speed, reliability, flexibility and price.

Fifth and finally, in view of the fact that we sampled five banks that we considered experts in the field of process design and these banks seemed to have developed quite satisfying front office – back office configurations, we conclude that their design considerations

might be seen as good or even best practice. The verification of these design considerations in a competing bank lends further support to their presentation as good or best practice, which should at least be relevant for other banks. In this respect, we consider the following design considerations good practice:

- With regard to the definition of front office and back office activities: Front office activities are justified when service production and delivery are absolutely inseparable (for banks: to establish a customer's identity), when marketing benefits are afforded by contact with the customer, when contact with the customer is in principle avoidable, but in practice necessary and when the speed and efficiency of service delivery improve through the elimination of follow-up work. Furthermore, the activities should be suitable for front office execution and capable of delivering the desired results. Activities that do not meet any of these criteria should be defined as back office activities.
- With regard to the decoupling decisions: Decoupling does not have to take place on the distinction between front office and back office activities, yet decoupling consecutive front office activities is undesirable. For banks: pay attention to given choices following from regulations on the separation of duties. Decoupling is also favored when centralization, specialization, matching workers and tasks, preventing over-qualification and building in counterchecks are desirable. Coupling is favored when avoiding handovers, ensuring concentrated customer knowledge, avoiding idle time and establishing broad tasks are desirable. Information systems and organizational arrangements can be used to overcome problems with handing over work. Information systems can also be used to create concentrated customer knowledge or coupled processes without the risk of over-qualification.
- With regard to organizational arrangements: Grouping does not have to take place on the basis of the decoupling decisions, yet functional groups seem to offer a wider range of benefits than market groups. Market groups are required when customized services are delivered by means of a decoupled process.
- With regard to remaining side effects: A lack of cross-fertilization between employees in market groups can be solved by locating them physically close together in the organization or establishing a second-order functional group. Handovers of work between employees in functional groups can be facilitated by assigning small groups of employees from one group to small groups of employees in the other group. Still, this can hurt the continuity of service delivery. A less rigorous option is the establishment of a contact person or contact point for the employees in the other group. Cross-training employees can increase the continuity of service delivery in market groups.

10.7 Conclusions

Now that we have answered the research questions, developed the framework and addressed its application, followed by several empirical conclusions from this study, we can draw a number of conclusions regarding the theoretical and practical contributions of this study. In a nutshell, this research adds the following insights to the current body of knowledge:

- The front office – back office issue consists of three design decisions: the definition of front office and back office activities, decoupling decisions and organizational arrangements.
- These three design decisions form a coherent front office – back office configuration.
- Decoupling does not have to take place on the basis of the distinction between front office and back office activities.
- The organizational arrangements should be separated from the decoupling decisions, because decoupling does not have to be the basis for grouping employees.
- In addition to when service production and delivery are inseparable, marketing benefits are afforded and they are practical for information exchange purposes, front office activities are also justified when they can improve the speed and efficiency of service delivery by eliminating follow-up work.
- In addition to the Cost Leader, Kiosk, Personal Service and Focused Professional decoupling strategies of Metters and Vargas (2000), decoupling can also be employed to increase sales. This is achieved by freeing sales capacity, specialization effects and the opportunity to match workers to tasks.
- Trade-offs involved in the design decisions can be overcome, particularly by using information systems.
- The banks in this study designed their front office – back office configurations in accordance with their company priorities, primarily the bottom line in process performance: increasing revenues and decreasing costs.

From a practical point of view, the main contributions of this study can be found in the application of the framework as a tool for description, diagnosis and design, as we described in the previous sections. In this way, this study provides insights in the front office – back office issue that integrate and add to the existing insights, leading to a more comprehensive, elaborated and up-to-date body of knowledge and has the potential to improve the design of existing and future front office – back office configurations.

There is one remaining aspect that deserves attention at this point of the thesis. What can be learned from this study with regard to the issue in the front office – back office issue?

Following the results of this study, we conclude that the question of the appearance of customer contact in a service delivery process does not seem to be the main design issue. This design decision seems to be rather straightforward. This is illustrated by the fact that we came across few differences in the definition of front office and back office activities between the banks we studied, see for example the overviews we provided at the end of chapter 6. Only for the standardized services, such as mass consumer products, the definition of front office and back office activities could be characterized as intriguing. Moreover, we were able to put forward a relatively elaborated good practice design consideration for the definition of front office and back office activities, facilitating the design choice. Instead, particularly in practice, the subsequent issues of decoupling, division of labor and organizational arrangements seem to be more complex. We encountered much more differences between the banks and there are no clear-cut design guidelines. Furthermore, when the banks referred to "front office" and "back office", they often meant departments or groups of employees. This means that if we narrow down the terms front office and back office to the presence or absence of customer contact, we are barking up the wrong tree. However, when we refer to them as front office – back office configurations, including decoupling and organizational arrangements, we have located the real issue. The framework we have developed in this research supports this perspective.

10.8 Recommendations for future research

The framework we have developed in this research, based on a literature review, an exploratory case study, a conceptual model, five main case studies and a final case study for verification, fills some of the voids we identified in the current body of knowledge regarding the issue of front office and back office activities in service delivery processes. Yet, each study has its limitations and leaves room for additional research or leads to new research questions that require investigation. In this section we address some of the limitations of this study and provide suggestions for future research.

To begin with, one of the limitations of this study regards the operations management approach. We have concentrated on the design of service delivery processes and that is the main area of application of the framework. Although we have tried to bear in mind the effects of process design on e.g. job design and organizational design, operations management was our main perspective. This might have colored our propositions, findings and recommendations. Another limitation regards our assumption that process design is a rational process, based on careful and traceable considerations. Even though we studied the design of front office – back office configurations empirically and conducted face-to-face interviews with the people that had designed them, we did not pay explicit attention to the role of the *designer*. We did not go into design as an ad-hoc process that might also be characterized by political behavior, serendipity and unintentional decisions that turn out to

be an excellent choice. We realize this has created a picture of process design that might be far from the actual truth in many service organizations. Still, we presume that if the front office – back office configurations in our banks had been designed by chance rather than by reason, the case studies would have shown. Furthermore, by approaching process design as a rational activity, we were able to lay the foundations for design guidelines.

In addition to these two limitations regarding our perspective on the front office – back office issue, the study itself shows a few limitations that offer opportunities for future research. They can be divided in three main avenues. The first avenue regards the comprehensiveness or breadth of the framework. We already articulated this study is based on empirical evidence from the financial services sector. Although we expect the framework to be applicable more broadly, it is advisable to investigate this. One of the most obvious recommendations for future research therefore is to compare the framework we have developed with the design considerations in different empirical settings. This will create insights in the given choices that apply to different kinds of contexts, such as medical or consultancy settings, and perhaps reveal arguments that can be added to the trade-offs.

A second avenue for future research regards the level of detail or the depth of the framework. We recognize that by studying a relatively large number of variables, some of the depth of the study might have been lost. Therefore, we recommend working out some of the relations in the framework in more detail. For example, we concluded that decoupling does not have to be based on the distinction between front office and back office activities and that grouping does not have to follow naturally from decoupling decisions. The banks in this study based their decoupling decisions on the different skills, knowledge and attitudes that were required for the sales part and administrative part of a process. Studying different organizations can reveal other bases for decoupling and grouping, adding to the insight in the front office – back office issue. In hospitals, for example, decoupling decisions might be influenced by the need for empathic and technical skills. Furthermore, the impact of service characteristics deserves more attention. We consider it worthwhile to study more services, with different characteristics, to determine in more detail which service characteristics influence the design considerations and in what ways.

The third avenue of recommendations for future research involves the prescriptive power of the framework. As we explained, the framework can serve as the basis for a design theory regarding the design of front office – back office configurations. Still, we need to engage in a phase of rigorous theory testing before it can be used prescriptively. For example, in this study we have not measured process performance to compare the performance of one design choice with another. It seems obvious to conduct quantitative studies to provide support for the design considerations. Although for the purpose of this

study, qualitative case studies were the most appropriate research methodology, future research to test the framework will probably benefit more from quantitative studies based on a large sample size. Potential hypotheses regard the performance effects of the trade-offs and the proposed fits between strategic priorities and process design, and service characteristics and process design. As an example, we expect that comparing the design considerations and design decisions of low performing organizations with the design considerations and design decisions of successful organizations can yield interesting results regarding the value of the framework.

Finally, the proof of the pudding is in the eating. The best way to assess the value of the framework we developed in this study is by applying it in practice to describe, diagnose and design front office – back office configurations. Combining the results from these exercises and the insights that follow from the future studies we proposed here, we will eventually arrive at a consistent, coherent, comprehensive and up-to-date design theory regarding the issue of front office and back office activities in service delivery processes.